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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,128	01/07/2002	Harvey C. Eisenberg	MULDP0101US	1072

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EXAMINER
ROY, BAISAKHI

ART UNIT	PAPER NUMBER
3737	

MAIL DATE	DELIVERY MODE
02/05/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/039,128	EISENBERG ET AL.	
	Examiner	Art Unit	
	BAISAKHI ROY	3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17 and 19-51* is/are pending in the application.

4a) Of the above claim(s) *2-8,12,13,17 and 19-24* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,9-11,14-16 and 25-51* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/20/07 have been fully considered but they are not persuasive. Crosetto teaches a multimodality imaging device which provides anatomical and physiological information in a single image without having to go through several examinations. With respect to scatter correction, Crosetto teaches a scatter rejection device operatively connected to the configuration of the focused two-dimensional curved detector arrays and operable to reject those x-ray produced by the x-ray source or collimate single photon gamma rays when the system is in a NM/SPECT mode of operation, where said collimation device is operable to improve the spatial resolution, sensitivity and energy range of single photon gamma rays when the system is in a NM/SPECT mode of operation (col. 37 lines 11-27 lines 41-54, col. 61 lines 10-44). Therefore the x-ray source can be modulated for assigning a signal to the x-rays produced by the respective modulated x-ray source and the signal is used to separate the data arising from detection of the modulated x-rays from data arising from scatter from another x-ray source. The previous rejection is maintained and repeated below.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 9-11, 14-16, and 25-51 are rejected under 35 U.S.C. 102(e) as being anticipated by Crosetto (7180074). Crosetto discloses an imaging system including a gantry, a patient support table, an x-ray source rotatable with respect to the gantry and the table, a detector array positioned to detect x-rays produced by the x-ray source, a collection system to acquire data received by the detector array, and a reconstruction system to process data acquired by the collection system (col. 23 lines 51 – col. 24 lines 7) , where the system is capable of operating in VCT, DR, PET and NM/SPECT modes of operation (col. 33 lines 22- col. 34). The system includes a scatter rejection device operatively connected to the configuration of the focused two-dimensional curved detector arrays and operable to reject those x-ray produced by the x-ray source or collimate single photon gamma rays when the system is in a NM/SPECT mode of operation, where said collimation device is operable to improve the spatial resolution, sensitivity and energy range of single photon gamma rays when the system is in a NM/SPECT mode of operation (col. 37 lines 11-27 lines 41-54, col. 61 lines 10-44).

The configuration of the two-dimensional curved detector arrays is positioned to minimize spatial resolution reduction from a central axis to the maximal axis regions of a pre-determined area (col. 50 lines 27-35). The reconstruction system uses data received by the collection system to reconstruct images from a helical volume spiral acquisition mode to produce whole body x-ray VCT volume images, where the reconstruction system selects data for helical spiral reconstructions, processing imaging data while utilizing redundant data (col. 38 lines 52-col. 39 line 4).

The imaging system includes an adaptive x-ray dose control system using data received by the collection system to optimize patient dosage and desired image quality and permit adaptive real-time dosage control during the image scanning process (col. 48 lines 42 – col. 49 lines 52). The imaging system permits continuous updating of the volume imaging data in real-time on interactive displays and includes in interventional image control system to control the acquisition of data by the collection system permitting production of substantially real-time images of invasive procedures on the patient (col. 42 lines 1-50).

The imaging system includes PET time stamping coincidence system for high count rate PET imaging, said PET time stamping coincidence system providing optimal coincidence digital time stamping of a positron generated gamma rays for real time randoms correction derived from average count rate adjustment and delay coincidence window rate (col. 60 lines 11-54). The imaging system includes a transmission attenuation system for whole body transmission attenuation correction, said attenuation system generating image projection corrections using VCT image and attenuation data (col. 37 lines 11-27, col. 38 lines 14-17, col. 61 lines 26 – col. 62 lines 52).

The imaging system includes a detector array which includes a configuration of focused two-dimensional curved detector arrays, wherein at least one gantry is comprised of a first gantry, a second gantry and a third gantry, said first, second, and third gantries being operatively attached to one another, where the configuration of focused two-dimensional curved detector arrays is comprised of a first configuration of focused two-dimensional curved detector arrays positioned to detect x-rays when the

system is in VCT and DR modes of operation, a second configuration of focused two-dimensional curved detector arrays positioned to detect coincident gamma rays when the system is in PET mode of operation, and a third configuration of two-dimensional curved detector arrays positioned to detect gamma rays when the system is in a NM/SPECT mode of operation (col. 35 lines 52 – col. 38 line 50).

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BAISAKHI ROY whose telephone number is (571)272-7139. The examiner can normally be reached on M-F (7:30 a.m. - 4p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BR

BR

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